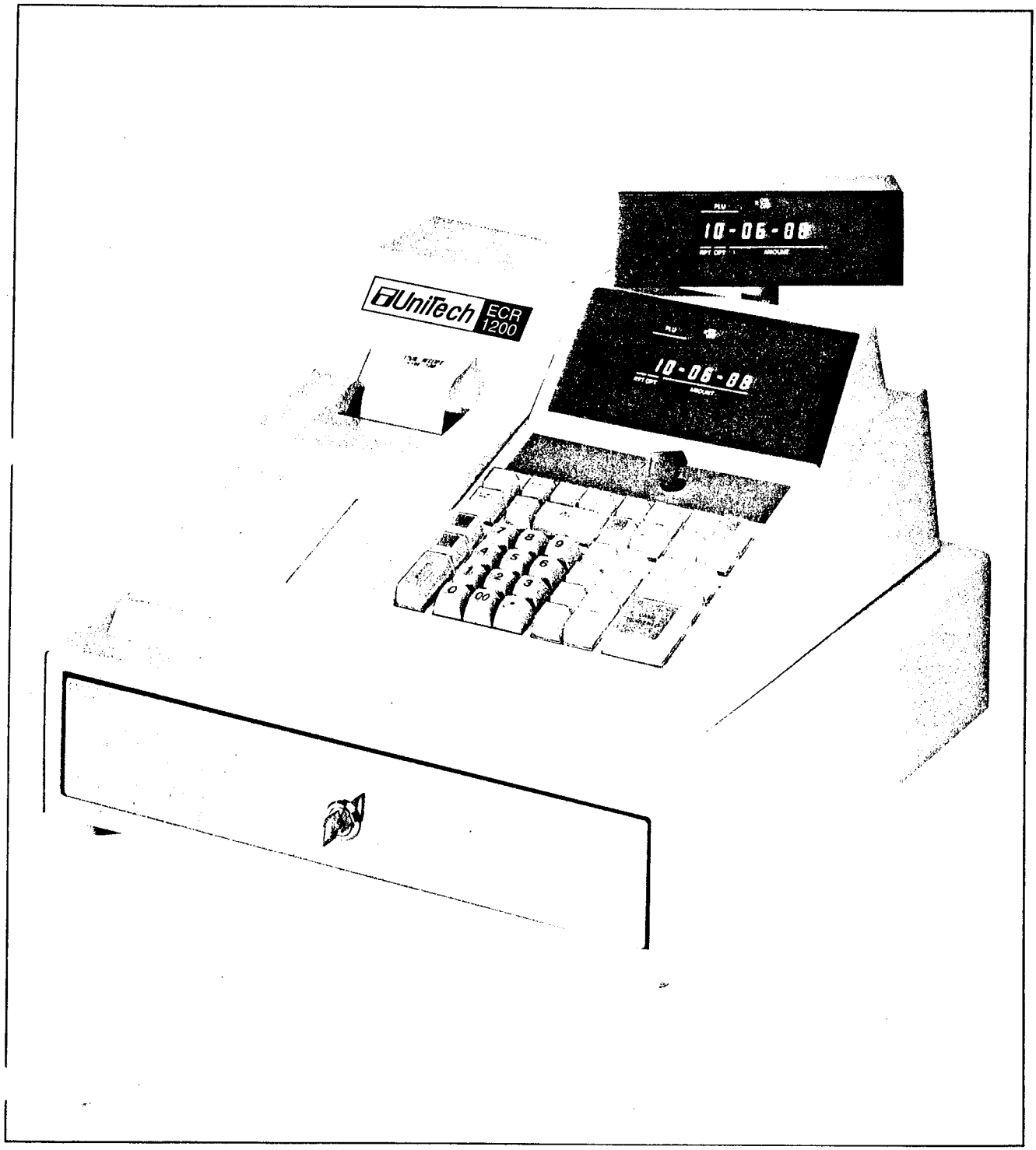
UniTech ECR-1210/1220

ELECTRONIC CASH REGISTERS

MEMORY CLEAR= PGM mode VOID 1016 SBTL

PROGRAMMING MANUAL



PRECAUTION

Before operating this cash register, you should first thoroughly read this manual.

This register must be fully programmed before it is operational.

Electrical Power Connection

This register plugs into any standard power outlet (local voltage ± 10% AC). It is best that a single circuit be provided for register operation and that no other electrical devices or appliances are connected to the same circuit; otherwise overloading may cause the register to malfunction.

Battery Jumper

The register is equipped with rechargeable Nickel Cadmium batteries for memory back-up. These batteries recharge automatically when the register is plugged in. When servicing the board, remove the battery jumper which allows the batteries to recharge.

Data stored in the memory can be maintained for a minimum of 30 days when the batteries are fully charged.

Warning

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Subject J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at their own expense will be required to take whatever measures may be required to correct the interference.

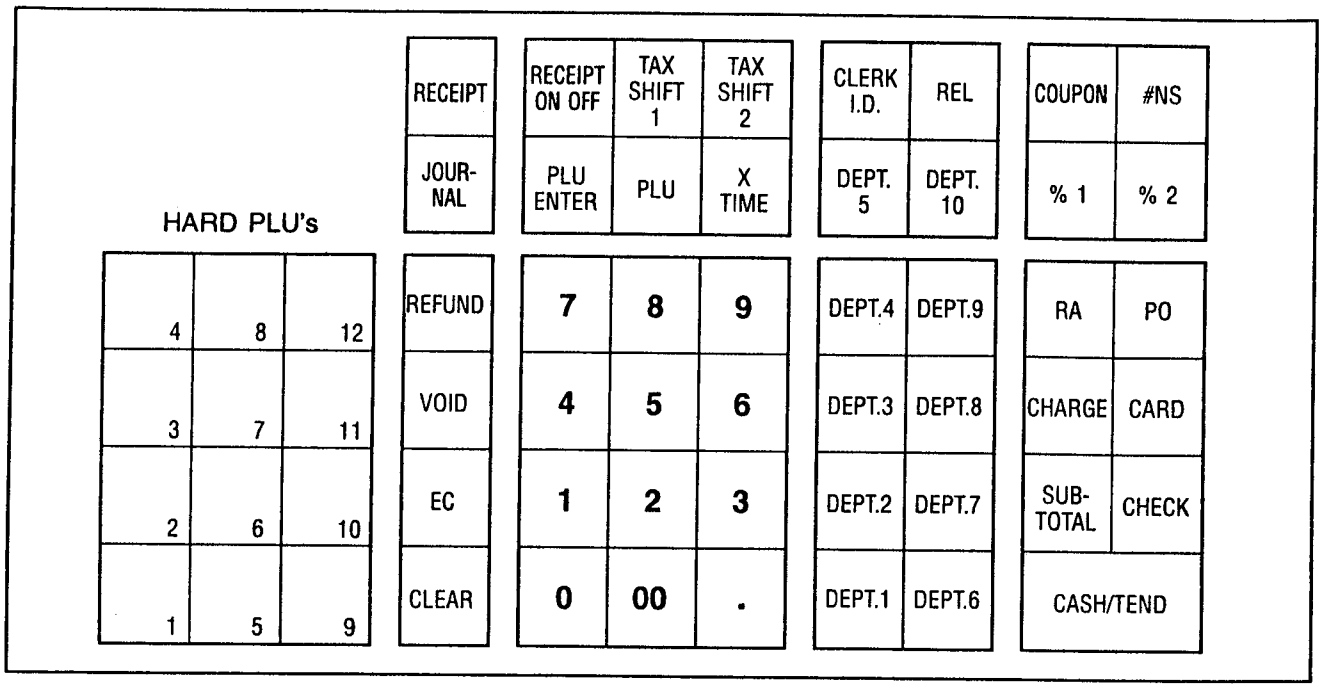
Power Failure

In the event of power failure, all records in the system's memory are protected with battery back-up. To open the cash drawer during a power failure, there is an emergency lever at the center back position underneath the drawer.

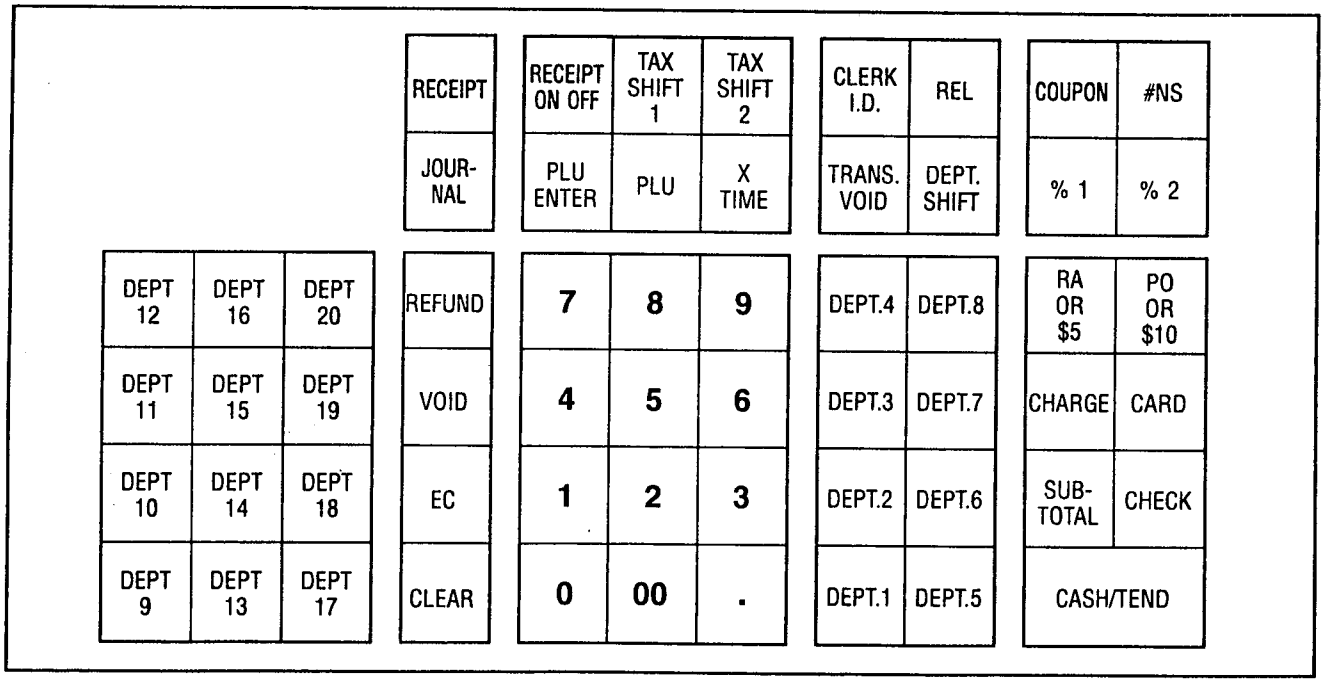
Disclaimer

The manufacturer reserves the right to change specifications or performance of this equipment without notice.

ECR 1210/1220 KEYBOARD



ECR 1210



ECR 1220

Table of Contents

1. Initialization

When a new system is put in service, it must be initialized with a system clear. Turn the Control Lock key to the "P" position. Depress the [VOID] key, "CLEAR" will be displayed on the screen, then depress the [SUBTOTAL] key to complete.

NOTE: Will erase all program information and return you to the original boot program.

2. Programming System Flags

It is recommended that this entire section be read at least once prior to programming.

2.1 Initial Flag Programming

Turn the Control Lock to the program "P" position. "POG-1" will appear in the display. The owner's (OW) key or the manager's (M) key are the only keys that can access this position. Depress the [RA] key. After entering the flag values desired, depressing the [Subtotal] key will finalize the flag number and sequentially step to the next flag to be programmed. Continue until all flags have been programmed. For a print out of the flag values depress the [CARD] key. To exit flag programming, depress the [Cash Tendered] key.

2.2 Editing System Flags

To change an individual system flag, turn the Control Lock key to the program "P" position. Enter the flag number to be changed and then depress the [RA] key. Change the flag values as desired and depress the [Subtotal] key. For a printout of the new flag values, depress the [CARD] key. To exit flag programming, depress the [Cash Tendered] key.

2.3 Flag 1

Digit #	System Default	In Display Flag # ☜ 01 02 ☞ Program Area
1	0	0-Use Standard USA date & add-on tax + 1-Use Military date & add-on tax + 2-Use VAT & USA date +3 VAT & Military date
2	2	Enter number of decimal places

2.4 Flag 2

Digit #	System Default	In Display Flat # ☜ 02 55 ☞ Program Area
1	5	Round off value for division in split pricing.
2	5	Must always be 5.

2.5 Flag 3

Digit #	System Default	In Display Flag # ☜ 03 55 ☞ Program Area
1	5	Round off value for computing taxes.
2	5	Round off factor for multiple pricing.

2.6 Flag 4

Digit #	System Default	In Display Flag # ☜ 04 00 ☞ Program Area
1	0	0 Print all information below on receipt. + 1 Do not print first line of header. + 2 TAX TABLE enable. + 3 Do not print 1st & 2nd header. + 4 Do not print Net total & TAX
2	1	0 Net tax method +1 USA Tax table enabled + 8 Tax on tax method (GST)

2.7 Flag 5

Digit #	System Default	In Display Flag # ☜ 05 00 ☞ Program Area
1	0	0 Print all information below. + 1 Not to print Grand Total. + 2 Not to print "Z" count + 4 Not to reset consecutive count on Full "Z" report.
2	4	Number of lines in the logo.

2.8 Flag 6

Digit #	System Default	In Display Flag # ☜ 06 000000 ☞ Program Area
1&2	01	Days for date.
3&4	01	Month for date
5&6	93	Year for date

2.9 Flag 7

Digit #	System Default	In Display Flag # ☜ 07 0000 ☞ Porgram Area
1&2	00	Hour for setting time.
3&4	00	Minutes for setting time.

Note: *Use military time. ie 2:30pm is 14:30*

2.10 Flag 8

Digit #	System Default	In Display Flag # ☜ 08 00 ☞ Program Area
1&2	00	Machine number from 00 to 99

2.11 Flag 9

Digit #	System Default	In Display Flag # ☜ 09 0007 ☞ Program Area
1	0	1 = Self test 2 = Tax shift 2 is GST shift 4 = Manual GST exemption allowed
2	0	Always Zero
3 + 4	07	Number of line feed between receipts

2.12 Flag 10

Digit #	System Default	In Display Flag # ☜ 10 0000 ☞ Program Area
1-4	0000	Beginning number for receipt consecutive count.

2.13 Flags 11-16 Clerk ID Numbers

Digit #	System Default	In Display Flag # ☜ 11 0001 ☞Program Area
1-4	0001	Clerk ID number from 1 to 9999

Note 1: *The display will increment after each [subtotal] for the new flag #.*
Note 2: *The default for flag 11 is 0001, all other clerk flags are 0000.*

2.14 Flag 17

Digit #	System Default	In Display Flag # ☜ 17 0000 ☞ Program Area
1-4	0000	Rate for service charge [%I]. For 10%, enter 1000. For 10.5%, enter 1050. Do not enter the decimal point.

2.15 Flag 18

Digit #	System Default	In Display Flag # ☜ 18 0000 ☞ Program Area
1-4	0000	Rate for discount [%II]. For 10%, enter 1000. For 10.5%, enter 1050. Do not enter the decimal.

2.16 Flag 19

Digit #	System Default	In Display Flag # ☜ 18 000000 ☞ Program Area
1	0	Not used
2	0	0 RA key + 1 Quick Tender
3 to 6	0000	Quick Tender Amount

2.17 Flag 20

Digit #	System Default	In Display Flag # ☜19 000000 ☞ Program Area
1	0	Not used
2	0	0 PO key #1 Quick Tender
3106	0000	Quick Tender Amount

2.18 Flag 21

Digit #	System Default	In Display Flag # ☜ 21 000000 ☞ Program Area
1	0	Not used
2	0	0 = Manual exemption on tax 1 not allowed 1 = Manual exemption on tax 1 allowed
3 to 6	0000	Tax 1 exemption limit

2.19 Flag 22

Digit #	System Default	In Display Flat # ☜ 22 000000 ☞ Program Area
1	0	Not used
2	0	0 = Manual exemption on tax 2 not allowed 1 = Manual exemption on tax 2 allowed
3 to 6	0000	Tax 2 exemption limit

2.20 Flag 23

Digit #	System Default	In Display Flag # ☜ 23 00 ☞ Program Area
1	0	0 = Print subtotal on both receipt and Journal 1 = Not print subtotal on receipt and Journal 8 = Not print "TRAINING" in the Receipt & Journal in Train mode.
2	0	0 = Print of TX1, TX2 Sales 1 = Not print of TX1, TX2 Sales

2.21 Flag 24

Digit #	System Default	In Display Flag # ☜ 24 00 ☞ Program Area
1	0	Not used.
2	5	FCE dots. Can be any digit from 0 to 9.

* For a printout of the new flag values, depress the [card] key. To exit flag programming, depress the [cash tenderde] key.

3. Programming in "X" Mode

The time and date may be programmed with the system in "X" mode. To accomplish this trun the Control Lock key to the "X" position and depress the [X/Time] key. Begin programming the date following instructions from section **2.8, Flag 6.** Depress [Subtotal] key to program time, section **2.9, Flag 7.**

4. Flag Print Out

01	USA	02
02	ROUND-OFF TX	55
03	ROUND OFF DS	55
04	TAX TABLE	01
05	LINE LOGO	04
06	DAY.MO.YR.	010291
07	HH MM	0215
08	MACHINE NO.	05
09	FEED NO.	0005

10	CONSEC-NO	0001
11	CLERKA	0001
12	CLERKB	0002
13	CLERKC	0003
14	CLERKD	0004
15	CLERKE	0005
16	CLERKF	0006
17	SERVICE %+	1500
18	DISCOUNT %–	1000
19	RA $ TENDER	000000
20	PO $ TENDER	000000
21	TAX 1 LIMIT	000000
22	TAX 2 LIMIT	000000
23	TAX - PRINT FG	00
24	FCE DOTS	00

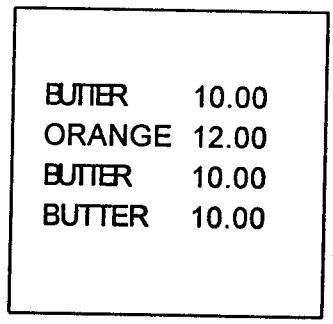
Hexadecimal Table

20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
SPACE	!	"	#	$	%	&	'	(	)	*	+	,	-	.	/
30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
P	Q	R	S	T	U	V	W	X	Y	Z	Γ	Δ	Θ	Λ	≅
60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F
ç	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F
p	q	r	s	t	u	v	w	x	y	z	P	S	F	Y	W
80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
	É	í	Å	É	Ö	Ü	Å	É	¡	Ö	Ü	∅	ñ	Å	Æ
90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
G̈	$	ζ	Å	É	¡	Ö	Ü	Δ	Ω	Ä	Ö	£	Fr		
A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
Ü	Ö	Ä		Ñ		½	II	III	IV	_	ä	ë	ï	ö	û

Note: In programming ASCII codes, the department keys one thru six gives "A" to "F" characters respectively. "0" thru "9" are entered through the numeric keyboard.

* About the size of character printings

As it is shown by the sample of the printings below,



we have both normal size and double size character printings. Such as:

Normal size double size
BUTTER 10.00 ORANGE 12.00

When programming a printing message, you have following legal choices:

Pure normal size or pure double size characters message. For example:

normal size: BUTTER 10.00
double size: ORANGE 12.00

Mixed size characters message with only the first character be double size.

· For example:
BUTTER 10.00

Please note following kind of mixed size characters is illegal:

· BUTTER 10.00

Please pre-programming the printing message following the rules:

· to have all characters double wide, press the (EC) key once at the beginning of each new descriptor

to have the first character only double wide, press the (N/S) key once at the beginning of each new descriptor

5. The Receipt Logo

The system will print up to four logo lines at the beginning of each receipt. Each line has a capacity of up to eighteen normal size characters or nine double size characters. To print double size characters, depress the [EC] or [N/S#] key prior to entering the characters. To return to normal size characters, depress the [OO] key. (See * About the size of character printings)

The characters and corresponding numeric hexadecimal codes, as shown on the preceeding page, are entered through the numeric keyboard. Hexadecimal A-F are entered through department keys one through six respectively. (See * Hexadecimal Table note)

5.1 Programming The Logo

Note: *It is recommended that the codes for the logo be determined and written down prior to beginning programming.*

Turn the Control Lock key to the program "P" position and depress the [PO] key. The display will show 01 000000 with the left digit signifying the line number being programmed and the right digits the programming area. Enter the codes for the entire line and depress the [Subtotal] key. The display will advance to the next line to be programmed. To print the logo depress [CARD]. To exit logo programming, depress the [Cash Tendered] key.

5.2 Editing A Logo Line

To edit a logo line, turn the Control Lock key to the programming "P" position. Enter the line number to be edited and depress the [PO] key. Continue as above, "Programming The Logo".

6. Programming Clerk And Credit Card Names

A ten-character name may be programmed for each clerk and credit card. Only normal size print can be used. Use the hexadecimal table on the preceeding page in the same manner as in "Logo Programming" above.

contd.

6.Programming Clerk And Credit Card Names contd.

Turn the control lock key to the program "P" position and depress the [Clerk ID] key. The display will show 1 434C45 with the left digits signifying the clerk number and the right side signifying the programming area. The left digits 01 to 06 are for the six clerks, 07 = Card 1. Enter the hexadecimal codes and depress the [SUBTOTAL] key. The display will advance to the next name to be programmed. To print the names, depress the [CARD] key . To exit name programming, depress the [CASH TENDERED] key.

6.1 Editing A Clerk Or Credit Card Name

Turn the Control Lock to the programming "P" position. To edit a clerk name, enter the number of the clerk to be edited and depress the [Clerk ID] key. Continue programming as above. To edit a credit card name, depress the credit card key to be edited and continue programming as above.

7. Department And Coupon Programming

The ECR 1210 (1220) has ten (forty) departments and one coupon key that may be programmed. There are three basic components to this programming. 1) Price Programming, 2) Flag Programming and 3) Descriptor Programming. After programming the tenth (fortieth) department, department eleven (forty-one) will represent the coupon key programming. It is not required that the coupon key be programmed.

7.1 Department And Coupon Price Programming

Turn the Control Lock to the program "P" position and depress the [Dept 1] key. The display will show 01P 000000. The left side of the display is the department number with the "P" signifying price programming. The right side of the display is the price programming area. Without entering a decimal point, enter the price (maximum six digits) and depress the [Subtotal key]. The display will advance to the flag programming position for the department.

7.2 Department Flag Programming

After programming the price as above, the display will show 01F 000108. The left side of the display is the department number with the "F" signifying flag programming. The right side of the display is the flag programming area. After entering the values desired from the following chart, depress the [Subtotal] key. The system will advance to the descriptor programming position for the department.

Digit #	System Default	In Display Dept # ☜ 1F 000108 ☞ Program Area
1	0	0 ADD-ON 1 VAT 8 negative department
2	0	0 Not a taxable department. + 1 Tax 1 + 2 Tax 2 + 3 Tax 1 + 2 + 4 GST + 5 GST + Tax 1 + 6 GST + Tax 2 + 7 GST + Tax 1 + Tax 2
3&4	01	Group number that the department is assigned to (1-20). This number cannot be zero.
5	0	0 Normal department + 1 Single item sale. + 2 The department cannot be used.
6	8	Enter the maximum number of digits that can be entered in the price (HDLO), maximum 9.

7.3 Department And Coupon Descriptor Programming

After completing the flag programming, the display will show 01 4445. The left digits signify the department number, and the right area is the descriptor programming area. A descriptor of up to twelve digits in normal size or six digits in double size may be programmed for each department.

From the hexadecimal table, enter the codes for the descriptor and depress the [Subtotal] key. The display will advance to the next department to be programmed. To print the department program, depress the [CARD] key. To exit department programming, depress the [Cash Tendered] key.

7.4 The programming of [CHARGE] or [FCE]

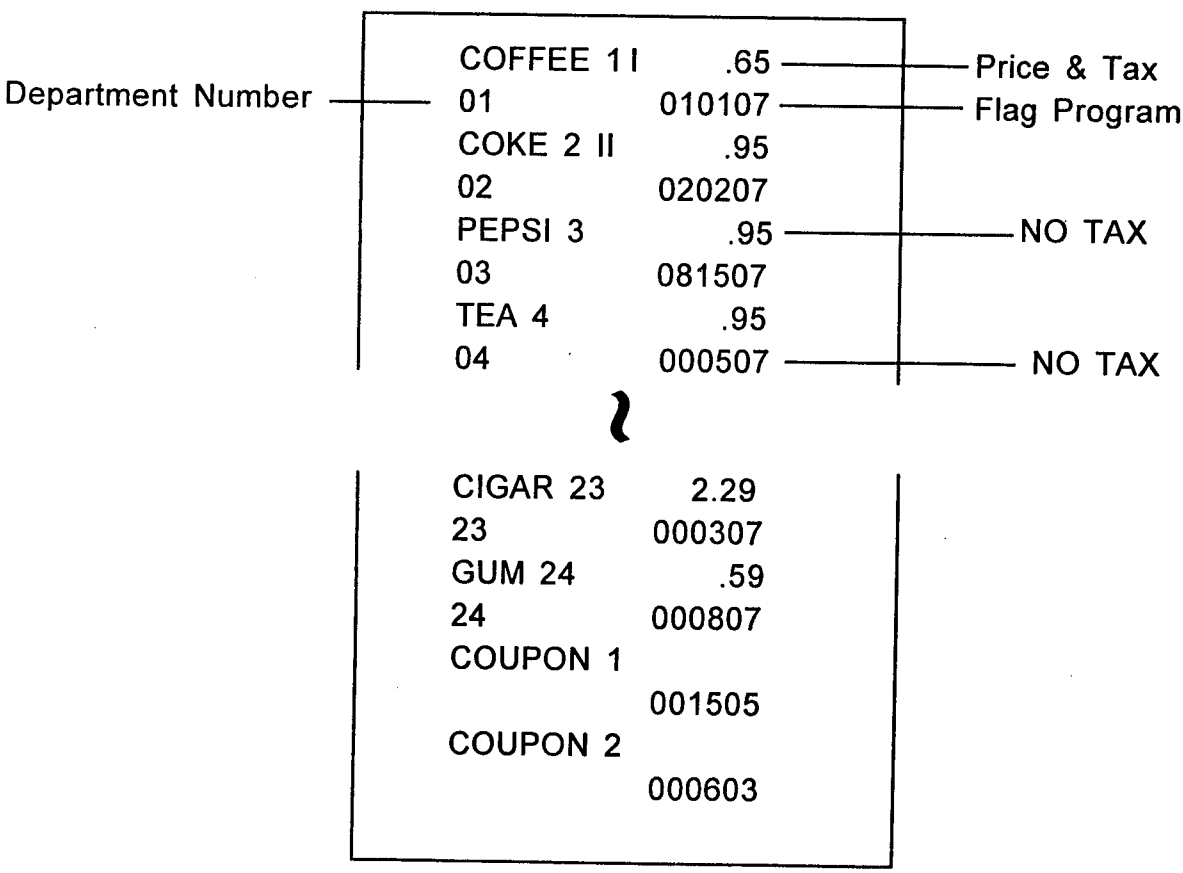
[CHARGE] key is defined as double-key. To determine the function of this key, please turn the control key to the program "P" position, Then

- Press [CHARGE] key, It displays ddP dddddd. The left 6 digits represent Foreign Currency Exchange Rate. For example, enter 120005.
- Then press [SUBTOTAL] key, It displays ddF dddddd. Here digit 1 represent the [CHARGE] key will be defined as Foreign Currency Exchange key or [CHARGE] key. Here 0 stands for [CHARGE] key, while 1 stands for [FCE] key.

8. Editing A Department Program

To edit a department program, turn the Control Lock key to the program "P" position. Depress the department or coupon key to be edited and begin programming as in "Department Programming."

9. A Department Program Print Out



10 PLU Programming

There are three basic components to PLU programming: 1) PLU price programming, 2) PLU flag programming, and 3) PLU descriptor programming . There are nine hundred PLU's on the 1210 and 800 PLU's on the 1220 which are available to be programmed.

10.1 PLU Price Programming

Turn the control Lock key to the program "P" position. Enter the PLU number to be programmed and depress the [PLU] key. The display will show 001000000(Assuming PLU 1 is the PLU being programmed first). The left side of the display is the PLU number with the "P" signifying price programming. The right side of the display is the price programming area. Without entering a decimal point, enter the price (maximum six digits) and depress the [Subtotal] key. The display will advance to the flag programming position of the PLU.

10.2 PLU Flag Programming

After programming the price as above, display will show 1F 000108. The left side of the display is the PLU number with the "F" signifying flag programming. The right side of the display is the flag programming area. After entering the values desired from the following chart, depress the [Subtotal] key. The system will advance to the descriptor programming area.

Digit #	System Default	In Display PLU # ☜ 1F 000108 ☞ Program Area
1	0	Must always be zero
2	0	0 full function PLU + 1 descriptive PLU only. This PLU will not add to sales.
3-4	01	Enter the department number to which the PLU is assigned. The number must be (1210) 01-10, (1220) 01-40
5	0	0 normal PLU. + 1 single item sale PLU. + 2 This PLU cannot be used.
6	8	Enter the maximum number of digits that can be entered in the price (HDLO), maximum 9.

10.3 PLU Descriptor Programming

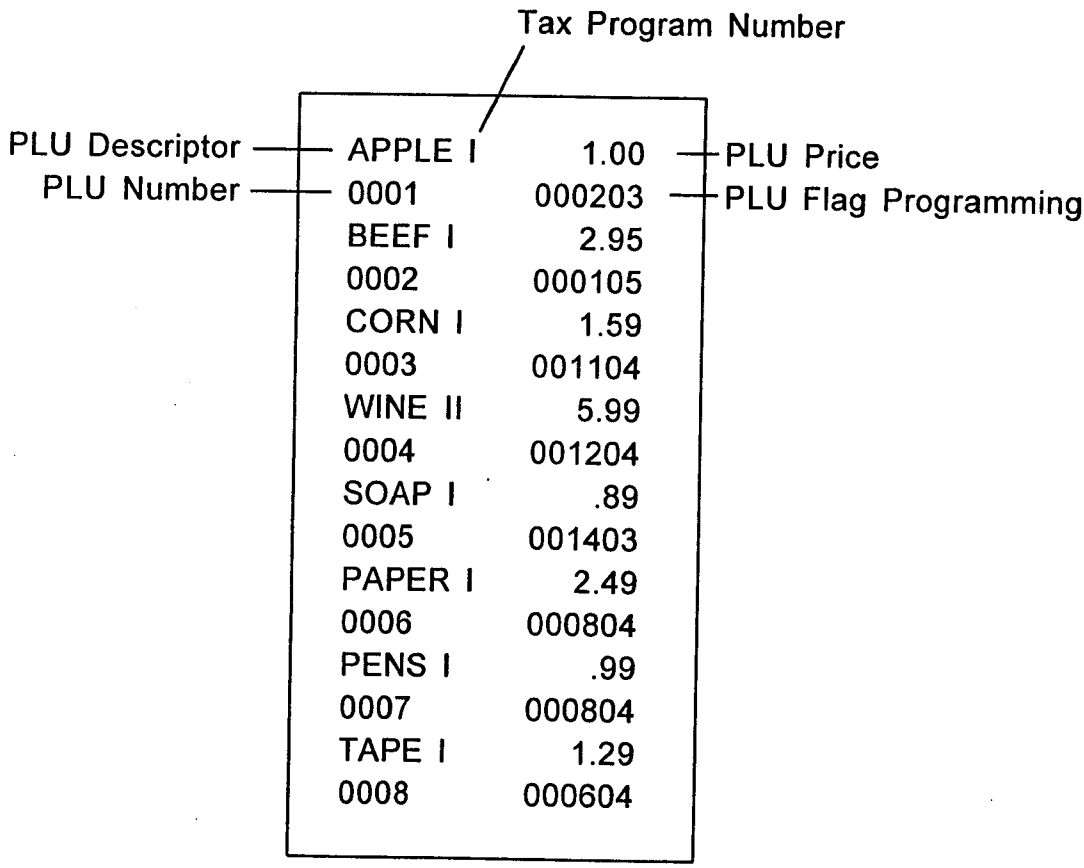
After completing the flag programming the display will show 01 3150. The left digit signifies the PLU number and the right area is the descriptor programming area. A descriptor of up to twelve digits in normal size or six digits in double size may be programmed for each PLU.

From the hexadecimal table, enter the codes for the descriptor and depress the [Subtotal] key. The display will advance to the next PLU to be programmed. To print the PLU program, depress the [CARD] key. To exit PLU programming, depress the [Cash Tendered] key.

11. Editing A PLU Program

To change the price or program status of a PLU, turn the Control Lock to the "P" position. Enter the PLU number and depress the [PLU] key. Begin programming as in section 10. PLU Programming.

12. A PLU Program Print Out



13. Tax Programming

13.1 Percent Add-on Tax

Straight Percent

Step / Action	Display	Comments
Switch to P position	' POG-1 '	;Program mode
EC +	'01 000000'	
1 + 0 + 00 + 00		;Tax 1 = 10%
SubTotal +	'01 544158'	
54 + 58 + 31 + 30 + 25 +		;Alpha For Tax 1
SubTotal +	'02 000000'	
2 + 0 + 00 + 00 +		;Tax 2 = 20%
SubTotal +	'02 544158'	
54 + 58 + 32 + 30 + 25 +		;Alpha For Tax 2
SubTotal +	'03 000000'	
7 + 00 + 00 +		;GST (add-on) = 7%
SubTotal +	'03 475354'	
47 + 53 + 54 + 37 + 25 +		;Alpha For GST
SubTotal +	'03 475354'	
SubTotal +	'01 100000'	;Use default
CASH		;Done

13.2 Tax Table Look-Ups

Note: *It is recomended that this entire section be read through before actually beginning to program tax tables.*

To program tax tables, the right digit of system flag #4 must be set at "1". Otherwise, only an add-on percent tax will be computed.

Each tax table has the following components:

Irregular Breaks	At the beginning of most tax tables, the break points are not in repetitive sequences. These are called irregular breaks.
Regular Breaks	When the sequence of differences of tax breaks begin to repeat themselves they are called regular tax breaks. This will be further explained with examples in the charts that follow.
Tax Limit	Is the dollar amount where the regular tax breaks begin. At this point the percent rate will be appiled.
Add-on Tax Rate	The percentage number used to charge tax.

13.2.1 Determining The Tax Breaks From A Chart

In the state of Florida tax table below, a 6% add-on tax rate is charged. To determine the breaks, sequentially subtract the numbers in the left column of the table from the number below it. Write down the differences (far left column).

Differences	Sales Amount	Tax
Only irregular break → .10	.00 - .09	.00
.07	.10 - .16	.01
.17	.17 - .33	.02
First sequence of regular breaks → .17	.34 - .50	.03
.16	.51 - .66	.04
.17	.67 - .83	.05
.26	.84 - 1.09	.06
.07	1.10 - 1.16	.07
.17	1.17 - 1.33	.08
Second sequence of regular breaks → .17	1.34 - 1.50	.09
.16	1.51 - 1.66	.10
.17	1.67 - 1.83	.11
.26	1.84 - 2.09	.12

As the left column illustrates, the sequence of .07, .17, .17, .16, .17, .26, repeats itself exactly. When determining the regular breaks it is necessary to compute two regular sequences; however, only one need be entered into the system during programming.

13.2.2 Programming The Tax Table

Turn the Control Lock key to the program "P" position. Enter the tax program number to be programed (1 or 2), and depress the [EC] key. The display will show 01 000000. The left digits indicate the tax program number (in this case tax program number 1), and the right digits indicate the programming area.

contd.

13.2.2 Programming The Tax Table contd.

Enter the add-on tax rate is six digit form, i.e. a tax rate of 6.5% would be entered as 065000. Do not enter decimal points when programming. Depress the [Subtotal] key. Enter the TAX Limit and depress the [Subtotal] key. Enter the first irregular tax break and depress the [Subtotal] key. Repeat the previous step until all irregular tax breaks are entered. After all irregular tax break have been entered, depress the [CARD] key. Enter the first regular tax break and depress the [Subtotal] key. Repeat the previous step until all regular tax breaks have been entered. When all regular tax breaks have been entered, depress the [CHARGE] key to print the program or depress the [Cash Tendered] key to exit tax programming.

14. Sample Tax Program

This sample program will use the information from the state of Florida tax chart on the previous page.

Enter	Key To Depress	In Display
060000	[Subtotal]	01 060000
110	[Subtotal]	0102 End
10	[Subtotal]	0101 End
	[CARD]	0101 End
7	[Subtotal]	0101 End
17	[Subtotal]	0102 End
17	[Subtotal]	0103 End
16	[Subtotal]	0104 End
17	[Subtotal]	0105 End
26	[Subtotal]	0106 End
	[CHARGE]	

Tax Program Print Out

TAX 1 RATE 6.00%
TABLE LIMIT 0110

IRR.	BRK.	01	10
REG.	BRK.	01	07
REG.	BRK.	02	17
REG.	BRK.	03	17
REG.	BRK.	04	16
REG.	BRK.	05	17
REG.	BRK.	06	26

TAX 2 RATE 0.00%

TAX 3 RATE 0.00%